RELEASE NOTES FOR 2 April 2004 NWSRFS Release 25
(part of AWIPS Release OB4)

New versions of all NWSRFS executables for the linux workstations are included in Release 25. The only HP executable part of this release is ofsde. Only programs updated for this release have a new version date. All other programs are from a previous release.

The new release consists of bug fixes and enhancements to several programs. The ESP function in fcst has been updated to better support upstream-downstream connectivity of Forecast Groups when running in the hindcast verification mode. All scripts have been update to use the secure shell (ssh) rather than remeote shell (rsh etc.) commands. The verify and IVP programs now run against the RAX archive database. The ens_pre program will now read NetCDF files for the CPC long lead outlooks. The ens_pre program also now uses the total probability instead of the anomaly as the CPC now issues their forecasts as total probability. The FLDWAV operation has been updatd tooutput the information needed by the FIdview inundation mapping application.

More specific information about bug fixes and enhancements are given below in the sections for each program. The release notes make extensive use of hyperlinks,shaded in a different text color. For example, in the sections for each program, each bug fix is designated by an HSD bug # telling which release had the problem and the number of the bug for that release (e.g. R23-2). More information about each bug can be found by following the link to the HSEB bug list maintained by the RFC support group (http://www.nws.noaa.gov/om/water/RFC_support/hseb_buglist.shtml).

The release notes contain the following sections:

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1. What's included in the Release (Back to Top)
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lx/rfc/nwsrfs/ofs/bin/RELEASE/batchpst
lx/rfc/nwsrfs/ofs/bin/RELEASE/espinit
lx/rfc/nwsrfs/ofs/bin/RELEASE/fcinit
lx/rfc/nwsrfs/ofs/bin/RELEASE/fcst
lx/rfc/nwsrfs/ofs/bin/RELEASE/filecrat
lx/rfc/nwsrfs/ofs/bin/RELEASE/filesize
lx/rfc/nwsrfs/ofs/bin/RELEASE/goesdb
lx/rfc/nwsrfs/ofs/bin/RELEASE/ppdutil
lx/rfc/nwsrfs/ofs/bin/RELEASE/ppinit
lx/rfc/nwsrfs/ofs/bin/RELEASE/prdutil
lx/rfc/nwsrfs/ofs/bin/RELEASE/reorder
lx/rfc/nwsrfs/ofs/bin/RELEASE/sasmdb
lx/rfc/nwsrfs/ofs/bin/RELEASE/shefpars
lx/rfc/nwsrfs/ofs/bin/RELEASE/shefpost
lx/rfc/nwsrfs/calb/bin/RELEASE/map
lx/rfc/nwsrfs/calb/bin/RELEASE/mape
lx/rfc/nwsrfs/calb/bin/RELEASE/mapx
lx/rfc/nwsrfs/calb/bin/RELEASE/mat
lx/rfc/nwsrfs/calb/bin/RELEASE/mcp3
lx/rfc/nwsrfs/calb/bin/RELEASE/opt3
lx/rfc/nwsrfs/calb/bin/RELEASE/pxpp
lx/rfc/nwsrfs/calb/bin/RELEASE/taplot
lx/rfc/nwsrfs/util/bin/RELEASE/create_bas_bound
lx/rfc/nwsrfs/util/bin/RELEASE/cvtgriddb
lx/rfc/nwsrfs/util/bin/RELEASE/get_apps_defaults
lx/rfc/nwsrfs/util/bin/RELEASE/looknset
lx/rfc/nwsrfs/util/bin/RELEASE/utilities.jar
lx/rfc/nwsrfs/ifp/bin/RELEASE/IFP_Map
lx/rfc/nwsrfs/ifp/bin/RELEASE/NWSRFS_no_startup
lx/rfc/nwsrfs/ifp/bin/RELEASE/bin_to_ss_input
lx/rfc/nwsrfs/ifp/bin/RELEASE/delete_atoms
lx/rfc/nwsrfs/ifp/bin/RELEASE/delete_is_running
lx/rfc/nwsrfs/ifp/bin/RELEASE/ifp_nwsrfs
lx/rfc/nwsrfs/ifp/bin/RELEASE/parse_mods_by_segment
lx/rfc/nwsrfs/ifp/bin/RELEASE/post_default_run_dates
lx/rfc/nwsrfs/ifp/bin/RELEASE/print_prop
lx/rfc/nwsrfs/ifp/bin/RELEASE/sacsnow.jar
lx/rfc/nwsrfs/ifp/bin/RELEASE/seg_sort
lx/rfc/nwsrfs/ifp/bin/RELEASE/set_dates
lx/rfc/nwsrfs/ifp/bin/RELEASE/startifp_done
lx/rfc/nwsrfs/ifp/bin/RELEASE/working_dialog
lx/rfc/nwsrfs/icp/bin/RELEASE/icp
lx/rfc/nwsrfs/ens/bin/RELEASE/batchbuilder.jar
lx/rfc/nwsrfs/ens/bin/RELEASE/ens_post
lx/rfc/nwsrfs/ens/bin/RELEASE/ens_post_cp
lx/rfc/nwsrfs/ens/bin/RELEASE/ens_pre
lx/rfc/nwsrfs/ens/bin/RELEASE/ens_pre_cp
lx/rfc/nwsrfs/ens/bin/RELEASE/ens_pre_s
lx/rfc/nwsrfs/ens/bin/RELEASE/espadp
lx/rfc/nwsrfs/ens/bin/RELEASE/espts_conv
lx/rfc/nwsrfs/ens/bin/RELEASE/espvs
lx/rfc/nwsrfs/ens/bin/RELEASE/print_ts
lx/rfc/xsets/bin/RELEASE/xsets

lx/rfc/xdat/bin/RELEASE/ofstofs
lx/rfc/xdat/bin/RELEASE/outputbadobs
lx/rfc/xdat/bin/RELEASE/xdat
lx/rfc/xnav/bin/RELEASE/ffgoutput
lx/rfc/xnav/bin/RELEASE/make24hrxmrg
lx/rfc/xnav/bin/RELEASE/make6hrxmrg
lx/rfc/xnav/bin/RELEASE/makeXdaysxmrg
lx/rfc/xnav/bin/RELEASE/wfoqpf
lx/rfc/xnav/bin/RELEASE/xnav
lx/rfc/nwsrfs/ffg/bin/RELEASE/ffguid
lx/rfc/nwsrfs/ffg/bin/RELEASE/prodgen
lx/rfc/nwsrfs/ffg/bin/RELEASE/zgrid
lx/rfc/grib/bin/RELEASE/gribit
lx/rfc/idma/bin/RELEASE/idma
lx/rfc/nwsrfs/ofsde/bin/RELEASE/ofsde
lx/rfc/nwsrfs/ofsde/bin/RELEASE/ofsde.hp
lx/rfc/../public/bin/dd_options
lx/rfc/../public/bin/remcmd_check_access
lx/rfc/../public/bin/remcmd_user_init
lx/rfc/../public/bin/remcmd_user_setup
lx/rfc/../rfc/axverify_ob4-r25_20040317_tar
lx/rfc/idma/scripts/runidma
lx/rfc/nwsrfs/ens/app-defaults/espadp
lx/rfc/nwsrfs/ens/scripts/bbuilder
lx/rfc/nwsrfs/ens/scripts/ens
lx/rfc/nwsrfs/ens/scripts/espvs_generate.sh
lx/rfc/nwsrfs/ens/scripts/run_espdata
lx/rfc/nwsrfs/icp/scripts/run_mcp3_remsh
lx/rfc/nwsrfs/ifp/scripts/fcst_script
lx/rfc/nwsrfs/ifp/scripts/get_ofs_data
lx/rfc/nwsrfs/sys_files/SHEFPARM
lx/rfc/nwsrfs/util/bin/RELEASE/adb.jar
lx/rfc/nwsrfs/util/bin/RELEASE/dbgen.jar
lx/rfc/nwsrfs/util/bin/RELEASE/ihfsdb.jar

In the Verify tar to be installed on the RAX machine:

verify/app-defaults/
verify/app-defaults/IVPBB_SYSTEM_FILE.txt
verify/app-defaults/IVPRUNINFO_SYSTEM_FILE.txt
verify/app-defaults/IVP_SYSTEM_FILE.txt
verify/bin/
verify/bin/RELEASE/
verify/bin/RELEASE/ivp.jar
verify/bin/RELEASE/Acme.jar
verify/bin/RELEASE/batchbuilder.jar
verify/bin/RELEASE/utilities.jar
verify/bin/RELEASE/ihfsdb.jar
verify/bin/RELEASE/adb.jar
verify/bin/RELEASE/dbgen.jar
verify/input/
verify/input/natlstats_template.txt
verify/input/pairing_template.txt
verify/output/
verify/scripts/
verify/scripts/ivp

verify/scripts/ivpbatch
verify/scripts/ivpbatchb
verify/scripts/ivpruninfo
verify/scripts/ingestpairs
verify/scripts/adb_commands.sql
verify/scripts/run_adb_commands
verify/scripts/ivpcronsetup
verify/scripts/adb_commands.sql
verify/scripts/run_adb_commands

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2. OFS RELEASE NOTES (Back to Top)

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Program Name	New Version	New Version Date
batchpst	ob4-r25.0	01/07/2004
espinit	ob4-r25.0	02/02/2004
fcinit	ob4-r25.1	03/11/2004
fcst	ob4-r25.1	03/11/2004
filecrat	ob4-r25.0	01/07/2004
filesize	ob4-r25.0	01/07/2004
goesdb	ob4-r25.0	01/07/2004
ppdutil	ob4-r25.0	01/07/2004
ppinit	ob4-r25.0	02/02/2004
prdutil	ob4-r25.0	01/07/2004
reorder	ob4-r25.0	02/02/2004
sasmdb	ob4-r25.0	01/07/2004
shefpars	ob4-r25.0	02/02/2004
shefpost	ob4-r25.0	01/07/2004

fcinit
Enhancements:

- modifications to incorporate the features of the "fldview-aware" fldwav prototype previously developed and supported by HSMB. The fldwav operation will now be able to generate the input data needed for the fldview forecast mapping program for segments which have been appropriately defined.
  The fldwav documentation is being updated to reflect the new variables required to define flood forecast mapping. The fldview documentation provides detailed information about the input files it uses. This documentation as well as the fldview application is still under development. For more information about the application, please contact Michael Richardson of HSMB (michael.richardson@noaa.gov).

Bug Fixes:

- corrected punch of the ACCMAX variable in SNOW-17 (r24-14)
- corrected punch of the RES-SNGL operation when using the STPOOLQ scheme (r22-47)
- updated to keep all the precision (hundreths of a foot) used to define the rule curve when using the rule curve scheme in RES-SNGL (r23-54)
- corrected punching of the SARROUTE operation (r23-55)
- segments with an FFG operation are now defined correctly if the FFG basin identifier was changed (r23-52)
- corrected punch of the FLDWAV operation which sometimes resulted in a "lexical error" (I/O error) when attempting to redefine a segment from the punch file (r24-13)

fcst

Enhancements:

- The start and end dates for a Historical Simulation time series file have been updated to make the entire year of data visible in espadp. Even with this enhancement, the last year of the Historical Simulation is not computed when the Conditional Simulation is less than 12 months long. Therefore, the Historical Simulation display in ESPADP may have one less year than expected. This enhancement is a fix for (r24-4)
- A new script (run_espdata) was added to create card file format versions *.HS files (see run_espdata in Section 13).
- The RES-J operation was updated to improve stability.
- Modifications to incorporate the features of the "fldview-aware" fldwav prototype previously developed and supported by HSMB. The fldwav operation will now be able to generate the input data needed for the fldview forecast mapping program for segments which have been appropriately defined.

  The fldwav documentation is being updated to reflect the new variables required to define flood forecast mapping. The fldview documentation provides detailed information about the input files it uses. This documentation as well as the fldview application is still under development. For more information about the application, please contact Michael Richardson of HSMB (michael.richardson@noaa.gov).
- ESP Verification runs (ESPVS) now work like operational ESP runs by allowing the user to specify ESPINDIR and ESPOTDIR techniques for the directories of input and output time series. This feature enables upstream downstream connectivity by allowing the current run to depend upon prior ESP Verification output. See the ESPVS documentation for more information.

Bug Fixes:

- in RES-SNGL, direct rainfall and evaporation are now included in the adjusted inflow for the observed and the forecast periods (r24-10)
- corrected problems RES-J was having with carryover for simulated pool elevations (r24-45)
- corrected SNOW-17 output table displaying NAN for snow depth when applying a WECHNG mod
- corrected simulated snow pack model calculations due to incorrect comparisons of integers and floats
- stopped SNOW-17 from displaying model output twice for segments using a rain-snow elevation value (r24-8)
- corrected FLDWAV unit conversions when using BLEND and the observed and blend location are the same (r21-67)
- corrected messages warning about missing data when using a NOMSNG operation for an ESP run (r22-50)
- corrected RES-SNGL ESP simulations when using the 'OBSERVED' variable in the RCL (r24-11)
- corrected ESP was run when initializing a run with QINE carryover for the first day of the month (r22-58)
- corrected ESP in the hindcast verification mode when executing the Consumptive Use operation (r24-27)

ppinit

Bug Fixes:

- no longer produces an erroneous message telling the user there is not enough space when running ORDER (r24-7)
- fixed problem with NULL characters showing up for carryover group information after running ORDER (r24-24)

shefpars

Enhancements:

- The SHEFPARM file was updated to include new TS codes that start with numbers. The new TS codes are probably not used by current "ofs" programs and the new "shefpars" program does not require their inclusion. This ehancement is a fix for (r24-9).

reorder

Bug Fixes:

- fixed problems with reordering files and printing out a status after reordering (r24-3)
- fixed a problem that resulted in the warning message '-32 IS AN INVALID PROCESSED DATA BASE

ORDINAL FILE NUMBER' being printed when new data types are added to new files (r24-34)

3. CALB RELEASE NOTES (Back to Top)

Program Name	New Version	New Version Date
map	ob4-r25.0	01/07/2004
mape	ob4-r25.0	01/07/2004
mapx	ob4-r25.0	01/07/2004
mat	ob4-r25.0	01/07/2004
mcp3	ob4-r25.1	03/11/2004
opt3	ob4-r25.1	03/11/2004
pxpp	ob4-r25.0	01/07/2004
taplot	ob4-r25.0	01/07/2004

4. IFP RELEASE NOTES (Back to Top)

Program Name	New Version	New Version Date
IFP_Map	ob4-r25.0	02/02/2004
NWSRFS_no_startup	ob4-r25.0	NA
bin_to_ss_input	ob4-r25.0	02/02/2004
delete_atoms	ob4-r25.0	NA
delete_is_running	ob4-r25.0	NA
ifp_nwsrfs	ob4-r25.1	03/11/2004
post_default_run_dates	ob4-r25.0	NA
sacsnow.jar	ob4-r25.0	NA
seg_sort	ob4-r25.0	NA
parse_mods_by_segment	ob4-r25.0	02/02/2004
print_prop	ob4-r25.0	NA
set_dates	ob4-r25.0	NA
startifp_done	ob4-r25.0	NA
working_dialog	ob4-r25.0	NA

ifp_nwsrfs
Bug Fixes:

- fixed a problem with IFP creating a RAINSNOW Mod with a NULL start date, end date and valid date when no dates are specified. Now, when the start date, end date and valid date are all NULL, IFP will not create the mod and pop up an error message (r21-45)
- improperly applied TSADD mods to MATs in the Snow-model (r23-31)
- corrected SETQMEAN when specifying a SETQMEAN mod to start before the start of the run (r24-12)
- corrected display of snow cover information when displaying the operations table for Snow-17 (r24-15)
- snow display was corrected when displaying liquid water content (LIQW) to be greater than the maximum amount of liquid water content (PLWHC) (r22-48)
- corrected to always display Areal Snow Cover (AESC) in the snow display (r22-49)
- IFP now properly creates empty mod files after removing all mods by FGROUP and writing mods back to OFS (r23-53)

IFP_Map
Enhancements:

- Script "get_ofs_data", which creates work directories in the user's home directory for use by program IFP_Map, was changed to use "ssh" (see get_ofs_data in Section 13)

5. ENSEMBLE PROGRAM RELEASE NOTES (Back to Top)

Program Name	New Version	New Version Date
batchbuilder.jar	ob4-r25.0	NA
ens_post	ob4-r25.1	03/01/2004
ens_post_cp	ob4-r25.1	03/01/2004
ens_pre	ob4-r25.3	03/17/2004
ens_pre_cp	ob4-r25.0	NA
ens_pre_s	ob4-r25.0	NA
print_ts	ob4-r25.0	NA
espadp	ob4-r25.1	03/11/2004
espts_conv	ob4-r25.0	NA
espvs	ob4-r25.0	02/02/2004

ens_pre
Enhancements:

- The ens_pre program was updated to reflect the change in the CPC forecast format from probability anomaly to total probability for the category. Where the CPC used to issue forecasts of say 5 or 10 percent. These values will now be reported as 38 and 43 percent respectively. The netCDF files use the total probability and the ens_pre program now expects the forecasts to be in total probability. The values entered via the espadp gui must also be in total probability.
- The old cpc grid format was replaced by netCDF files. The NetCDF grids are located in the directory specified by the token ens_pre_griddb and are in files named with a CCYYMMDD_hhmm format. Ens_pre selects the latest netCDF grid and compares it to the reference time in .../cpc_fcsts/****.cpc file. If the reference time in the .cpc file is later or the same as the NetCDF files, the .cpc file will be used. The new tokens added to ens_pre are:

ens_msglog_level : (0 -- 127, defaults to 0 - we suggest using level 5 to return all error and warning messages. The user should not have to use a level greater than 15.)

ens_log_dir : Directory for log output

enspre_griddb : location of netCDF files

The enspre_griddb token is defined in the national appsdefault file as $(FXA_DATA)/Grid/SBN/netCDF/CONUS211/CPCoutlook.

The description below describes the logic the ens script uses to resolve $FXA_DATA.

Note: This is a description. Do not try to run these steps individually.

1.) Determines whether $FXA_HOME is defined. If it is not defined runs the script /awips/hydroapps/set_hydro_env to get $FXA_HOME

2.) if FXA_HOME is still not defined, it will give an error and exit.

3.) if FXA_HOME is defined, the script $FXA_HOME/readenv.sh is run to get $FXA_DATA

4.) if FXA_DATA is still not defined, the script will give an error and exit.

The existing ens_pre documentation will be updated to reflect these changes.

Bug Fixes:
- fixed .old files with to have correct year information (r22-25)

espadp
Enhancements:

- Updated ESPADP to reflect the change in the CPC forecast format. The long range CPC forecasts are now issued as total probability for the category, not as the probability anomaly. The ESPADP gui reflects this change.
- Modified the ESPADP x-axis labels to display at more meaningful increments
- ESPADP was changed to allow for a user specified name for the espadp log file and to ensure proper opening of a fortran unit 9 file used by espadp. Specifying the name of the espadp log file requires the following command line syntax:

  espadp -log <filename> ...

  If "-log <filename>" argument is present, it must appear immediately after the espadp command. If <filename> is "nolog" then no log file will be created. The default filename, if -log is not used, is $(get_apps_defaults ens_output)/$LOGNAME/espadp.log. The fort.9 file is opened whenever ESPADP is run and an FGETSG error message (a routine error message that should not concern the user) is generated. Previously, the fort.9 file was placed in the current directory. Hence, if two people ran ESPADP simultaneously in the same directory and both needed to open fort.9, ESPADP would quit with a pgfio error. With this release, ESPADP will open a file in the /tmp directory with a name of "fortran_9.<time stamp>". Upon exiting ESPADP, it will delete this file, since nothing meaningful is ever written to it. The only time this file will not be deleted is if ESPADP core dumps or memory faults.
- Changes to ens script to allow simultaneous runs of ESPADP (see ens script in section 13)

Bug Fixes:
- corrected export of Wakeby and Weibull probablitiy distributions tables. The table did not show the exceedance probabilities and empirical sample points (r23-11)
- corrected display of the expected value plot when zooming into to view a few days (r24-1)
- corrected the run period when using batch mode to create Exceedance plots with INTERVAL keyword set to month or day (r21-30)
- improved speed (reduced run-time) (r23-19)
- corrected exceedance quantile plot display when datacards did not start in October (r24-28)
- corrected the mean and standard deviation computation for the expected value plot (r22-52)
- corrected the 1-5 day Temp Max and Min Anomalies which were reversed in the output file and there was no default value for the 1-5 day 'Temp Max Anomaly' (r23-56)

ens_post_cp
Bug Fixes:
- corrected the Error model writing to time series (r23-9)

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6. ICP RELEASE NOTES (Back to Top)

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Program Name	New Version	New Version Date
icp	ob4-r25.1	03/01/2004

icp
Enhancements:

- we suggest changing the token "mcp3_icp_iface" in apps_defaults to mcp3_icp_iface=/tmp/$LOGNAME/mcp3_ntrfc.
  In-house testing has shown significant reduction in run-time when this directory is mounted on a local workstation directory. This token will be changed to the above value in the national apps_defaults file for ob4.

Bug Fixes:

- updated icp to run correctly on Linux boxes when home_files_workstation set to DS-1 (r24-16)
- corrected SNOW-17 display labels for observed and simulated snow depth variables which were reversed (r24-18)
- corrected ICP plots which were shifting when moving the slider bar controlling the horizontal axis back and forth (r21-5)

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7. X PROGRAM RELEASE NOTES (Back to Top)

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Program Name	New Version	New Program Date
outputbadobs	ob4-r25.0	01/07/2004
xdat	ob4-r25.0	02/02/2004
xnav	ob4-r25.0	02/02/2004
xsets	ob4-r25.0	02/02/2004
ofstofs	ob4-r25.0	10/09/2003
ffgoutput	ob4-r25.0	01/07/2004
make24hrxmrg	ob4-r25.0	01/07/2004
make6hrxmrg	ob4-r25.0	01/07/2004
makeXdaysxmrg	ob4-r25.0	01/07/2004
wfoqpf	ob4-r25.0	01/07/2004

xdat
Bug Fixes:

- corrected SHEF message generated after editing data which did not include seconds information in the timestamp (r24-22)
-

xnav
Bug Fixes:

- corrected the shef message when making a correction to a gauge value because the pe code had been left out of the message (r24-23)
- corrected forecast hydrographs displays which left out the ht forecasts (r23-6)
-

xsets
Bug Fixes:

- fixed error messages claiming rating curves could not be found when they existed (r24-39)

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8. UTIL RELEASE NOTES (Back to Top)

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Program Name	New Version	New Program Date

create_bas_bound	ob4-r25.0	NA
cvtgriddb	ob4-r25.0	NA
get_apps_defaults	ob4-r25.0	NA
looknset	ob4-r25.0	NA
utilities.jar	ob4-r25.0	NA
adb.jar	ob4-r25.0	NA
ihfsdb.jar	ob4-r25.0	NA
dbgen.jar	ob4-r25.0	NA

create_bas_bound
Bug Fixes:
- corrected incorrect binary geo_data output files (r23-51)

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9. IDMA RELEASE NOTES (Back to Top)
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Program Name	New Version
idma	ob4-r25.0

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10. VERIFY RELEASE NOTES (Back to Top)
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Program Name (executable name)	New Version	New Program Date
Vfyruninfo Editor (ivpruninfo)	ob4-r25.0	02/02/2004
Verify Pairs Ingestor (ingestpairs)	ob4-r25.0	02/02/2004
IVP Batch Program (ivpbatch)	ob4-r25.0	02/02/2004
IVP Batch Builder (ivpbatchb)	ob4-r25.0	02/02/2004
IVP GUI (ivp)	ob4-r25.0	02/02/2004

verify
Enhancements:
- The verification software has been ported over to the RFC archive (rax) machines. The old verify program on the AWIPS platform will not be delivered for ob4. The new software consists of five programs:

  1) Vfyruninfo Editor -- A graphical user interface (GUI) that allows editing the vfyruninfo table. The vfyruninfo table stores parameters for the pairing algorithm and must be populated before any verification can be done. This program is executed using the script ivpruninfo

  2) Verify Pairs Ingestor -- A program that allows for data contained in pairs files (constructed using the old verify program; ob3 and earlier) to be ingested into the vfypairs table of the archive database. This program is executed using the ingestpairs script.

  3) IVP Batch Program -- A program that processes batch files in order to populate the vfypairs table and calculate verification statistics. This program is executed using the ivpbatch script

  4) IVP Batch Builder -- A GUI that provides tools for editting an IVP batch file. This program is

executed using the ivpbatchb script

5) IVP GUI -- Identical to the old IVP program (ob3 and earlier), except for bug fixes. This script is executed using the ivp script

The new verification software takes advantage of the increased speed of running on a Linux platform and a more efficient algorithm for faster pairing of forecast and observed values. The new software also allows for more flexible user control of pairing parameters and provides for calculation of additional statistics.

To use the software river stage data must be stored in either the pecrsep or pehpsep table for the location where verification statistics are to be calculated. If the data is not stored in this table, the only way to populate the vfypairs table so verification statistics can be calculated is by using the Verify Pairs Ingestor. The complete documentation for the new software is available at http://www.nws.noaa.gov/oh/hrl/verification/verification.php

As part of this release, accompanying the software are two template batch files, both placed on the archive machine in the directory /rfc_arc/verify/input. The first is called pairing_template.txt. It is the template for a run of the pairing algorithm. It is intended to be processed once per week in a cron and provides for pairing over a two week interval, allowing for overlapping of pairing runs. The second is called natlstats_template.txt, and is the template for calculation of statistics for the national verification project.

ivp
Enhancements:

- users can now manually set the title of the main IVP display. This makes it easier to identify the forecast-observed data pairs each product is displaying. This enhancement fixes (r22-21)
- IVP will now display different user-selected physical element (pe) types in th the same plot. This enhancement fixes (r22-22)
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11. GRIB RELEASE NOTES (Back to Top)
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Program Name	New Version	New Progam Date
gribit	ob4-r25.0	02/02/2004

gribit
Bug Fixes:

- Fixed a problem that resulted in the message 'ERROR: process P2M01 not in table' being printed when creating a GRIB file from an xmrg file with a source field that has null characters (r24-43).
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12. SYS_FILES RELEASE NOTES (Back to Top)
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Release R25 does not include any changes in this area.

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13. SCRIPT RELEASE NOTES (Back to Top)
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run_espdata
Enhancements

- A new script (run_espdata) to create CALB file versions of *.HS is included in this release. The syntax

for running run_espdata is:

run_espdata [h,dd,dj,todc] <ESP ts file>

where <ESP ts file> is the name of ONE HS time series file generated by ESP. The output of the run are written to stdout. The content of the output depends on the argument immediately after the command. The options are as follows:

h -- contents of ESP file header only.
dd -- contents of header and data printed in two column format: <date/time in GMT> <value>
dj -- contents of header and data printed in two column format: <julian hour> <value>. The julian hour is from Jan 1, 1900, 0:00 GMT.
todc -- generate a datacard file containing the data of the ESP output file, with the same name as the input ESP ts file with .txt appended. The todc option is a fix to (r24-6)

NOTE: The output from this program will consist of only that data that is not missing... i.e. is not -999.

ens
Enhancements

- During any run of ESPADP an espadp.log file is generated. When two or more people attempt to run ESPADP at the same time, they may encounter problems due to multiple people writing to the same espadp.log file. The ens script has been changed to take advantage of the new espadp log file mechanism which deals with this problem and the new fortran unit 9 file mechanism. Since the log file information is displayed on the screen as well as in the log file, the ens script was edit to not create a log file. Instead, the screen output from ESPADP will be sent to the ens output file (specified using the -o option on the ens script). This change, combined with the fortran unit 9 file change to ESPADP should allow many users to run ESPADP via the ens script simultaneously.

get_ofs_data
Enhancements

- Script "get_ofs_data", used by IFP_Map to create work directories in the user's home directory, was changed to now use the remote command "ssh". Due to security reasons, the old remote commands such as rsh and remsh will not be supported in the future (see http://www.ops1.nws.noaa.gov/awips_install.htm). In making this change, the whole script was re-coded. To use "ssh" users must create an ".ssh directory" under their home directory, create public and private id keyword files, and have access to other machines.

We have provided the following remote command setup scripts to perform the above user tasks:

- remcmd_user_setup .. this creates the .ssh directory and id files
- remcmd_user_init <hosts> .. interactively accesses the given hosts so the user can add them his/her access list
- remcmd_check_access <host>.. this script is used by "get_ofs_data" to see if the user has access rights to a given host prior to the actual use of command "ssh" (i.e. to avoid having an interactive interruption).

The three remote command scripts should be loaded in a "public/bin" directory. The IFP_Map program looks for "get_ofs_data" in the ".../ifp/scripts" directory. To test the new scripts, script "get_ofs_data" can be run independently to create and/or load the user's work directories ("$HOME/ofs_ifp and "$HOME/.ifp_files") using the following command,

get_ofs_data [-h <host>]

where the "-h hostname" is optional (the default host comes from apps-token "home_files_workstation").

14. FFG RELEASE NOTES (Back to Top)

Program Name	New Version	New Progam Date
ffguid	ob4-r25.0	02/02/2004
prodgen	ob4-r25.0	02/02/2004
zgrid	ob4-r25.0	02/02/2004

ffguid:
Bug Fixes
- fixed problems encountered after running setup commands (r24-26)
- fixed problems when processing stop when Setup -> Headwaters -> add -> file is run and the description field contains the full 20 characters (r24-41)

prodgen:
Bug Fixes
- fixed a problem where the FFG products are creating a SHEF-coded observation time as "DH00 Z", rather than 12Z (r24-46)

15. OFSDE RELEASE NOTES (Back to Top)

Program Name	New Version	New Progam Date
ofsde	ob4-r25.0	02/02/2004

Enhancements:
- added a divide by 100 for SA (Areal Snow) data values appearing in the IHFS ProcValue table - requested by NCRFC

16. WHFS RELEASE NOTES. (Back to Top)

Release R25 does not include any changes in this area.

17. DOCUMENTATION NOTES. (Back to Top)

18. CONTACT INFORMATION (Back to Top)

If there are any questions, Please contact the HSD RFC support team.